U.S. AMLR Program and National Science Foundation

2012-2013 Weekly Field Reports Copacabana, King George Island

Volume 6 November 19, 2012

Science Report:

1. Penguins: Reproductive monitoring of Adélie and gentoo penguins continues. Currently only 60 out of 100 gentoo penguin reproductive nests are active. Several relay nests are included in the total, where reproductive study pairs failed and then either moved nest locations or re-laid with the same or different mates. Most of the snow has melted from the Adélie penguin colonies making our non-disturbance nest monitoring much easier.

Another Adélie penguin GLS tag was recovered on Monday (11/19), bringing the total recovered tags to 35.

Half of the gentoo penguin egg measurements were carried out at Copa on Friday (11/23). Both eggs at 25 nests were measured and weighed, to give us an indication of female condition at egg laying. Thus far, egg volumes appear to be slightly below the 25-year mean. The other half of the measurements will be taken from the Copa Beach colonies as soon as they reach peak egg-laying. Due to the heavy snow year, the timing between the hill colonies and the beach colonies varies greatly.

Gentoo penguin egg laying in the beach colonies has picked up significantly and all reproductive study sites are in place. Most of the snow has melted enough to expose pebbles with which the gentoos are furiously building nests.

The first gentoo penguin chick of the season was seen in one of the hill colonies on Sunday (11/25). No chicks have yet to be seen in any reproductive study sites.

Chinstrap penguin adult weights and egg 1 measurements were carried out at the Uchatka and Patelnia colonies on Tuesday (11/20). As we did with the Adélie penguins, 50 nests were randomly selected with both adults present and only 1 egg, then both adults were weighed and the egg measured and weighed. This year, all the measurements were very close to the 20-year mean.

A survey of the Copa Beach chinstrap penguins was conducted on Sunday (11/25), resulting in 8 occupied nests, one with two eggs and one with one egg.

No additional chinstrap GLS tags were recovered from the Uchatka colonies.



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2. Skuas: Regular checks of the Copa skua breeding territories continue. Most of the "penguin" territories are complete with their returning pairs. We eagerly await the return of our last two Copa GLS tagged birds - two male brown skuas. Our hope is that they are simply late in returning and will eventually return to their territories.

The Demay and Patelnia skua routes were partially completed on Tuesday (11/20), as weather and time spent doing chinstrap penguin adult and E1 measurements prevented us from visiting every territory. One returning pair was observed at the Patelnia chinstrap penguin colonies as well as single members of two additional territorial pairs. Non-penguin territories in the Patelnia area yielded no skuas. The returning pair of brown skuas at the Uchatka chinstrap penguin colony was present, as well as some of the birds at territories near Demay. Most non-penguin territories remained unattended with only a few exceptions.

The first backcountry skua trip of the season was completed on Saturday (11/24). The trip essentially became an orientation for new crew members as the skua routes generated only two resights of south polar skuas. Much of the area remains snow covered but is melting, albeit slowly.

The Point Thomas skua routes were conducted on Sunday (11/25), resulting in the first brown skua egg of the season! Territory 29, near Arctowski and the Point Thomas Adélie penguin colonies, commonly known as "Stream", had one egg. All skua eggs are marked, measured, and weighed to determine if there are any differences in egg sizes between the different types of feeding territories and/or if there are any changes between the years. Marking the eggs also allows us to determine which egg is lost, if a loss occurs, or which egg has hatched, if only one egg hatches.

- 3. Sheathbills: A total of five sheathbills have been seen occasionally, mostly off of Copa Rock and on the north end of Copa Beach. No sign of our one breeding pair, including the male known as "Rasta" (due to his red, green, and yellow colored leg bands), has been seen yet.
- 4. Whales and Seals: Humpback whales continue to be observed feeding and traveling in Admiralty Bay. One whale was seen on 11/23 and a pair was seen on 11/25, one of which appeared noticeable smaller but not small enough to be considered a calf.

The weekly seal census yielded 13 young elephant seals between Arctowski and Ecology Glacier.



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5. Other: The first Wilson's storm petrel at Copa was seen flying around the hut on Thursday (11/22).

A king penguin was observed walking with some Adélie and gentoo penguins near Ecology Glacier on Sunday (11/25).

Weekly Weather:

Average temperatures remained below or near freezing for most of the week. Tuesday (11/20) proved to be a challenging weather day with wet snow and cold temperatures as we traveled to Demay and Patelnia to complete the chinstrap penguin measurements. Similar weather continued on Wednesday and into Thursday for our Thanksgiving festivities. Some snow accumulation occurred but has since melted. Saturday was an excellent weather day, with little to no wind, for our first backcountry skua trip of the season. Sunday was even better with sunshine, no wind, and temperatures trying to climb above freezing.

Camp Activities:

Thanksgiving festivities commenced at Copa on Thursday (11/22) with five Polish visitors from Arctowski. Actual festivities began Wednesday with the defrosting of the turkey and the multitude of other Thanksgiving culinary creations being produced.

A valued member of the Copa team departed safely as the R/V *Laurence M. Gould* arrived Monday (11/19) to deliver gear and supplies. Goodbyes were had as Sue began her journey back to California.

The water barrels have finally begun to flow with only brief periods of refreezing, so daily snow shoveling onto the roof has commenced. We have happily retired the big snow melting pot.

The 2012-12 Copa Field Team:
Sue Trivelpiece, Co-PI
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